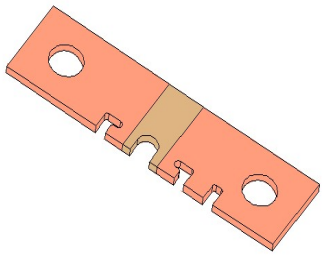
SBY–5515 Series

Low Ohmic EB Welded Precision Resistor



Features

- 3 Watts Permanent Power
- High Conductivity Copper Connectors
- Excellent Long Term Stability
- High Application Temperature Range -65ºC to +170ºC
- Max. Solder Temperature up to 350°C / 30Sec
- Flame Resistant
- Solid Metal Construction
- RoHS and REACH Compliant
- AEC-Q200 Compliant

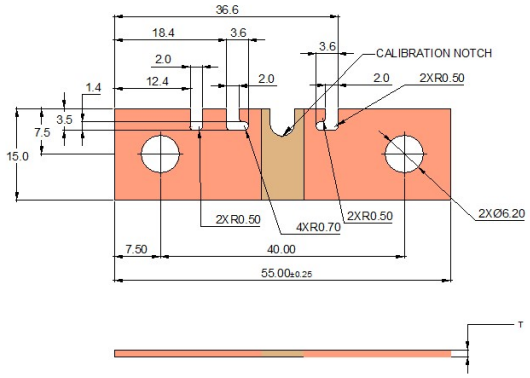
Applications

- Current Sensing/ Feedback
- Automotive Applications
- Power Modules
- Frequency Convertors
- Inverters
- Low Inductance Applications

RoHS

Pb lead-free

Technical Data		
Resistance Values	0.1 , 0.2	(mΩ)
Tolerance	5	(%)
TCR - Temperature Coefficient (Resistive Alloy)	<±20 (Copper Manganese Alloys)	(ppm/K)
Applicable Temperature Range	-65 to +170	ºC
Load Capacity	3	W
Inductance	<0.5	nH
Thermal EMF	<1	µV/°C
Stability Deviation	< 0.5 after 2000 Hours, T_t^*= 100ºC	%
* T_t = Terminal Temperature	< 1.0 after 2000 Hours, T_t^*= 130ºC	%



Resistance Value (mΩ)	T(mm)	TCR (PPM)	Type
0.1	1.42 ±0.1	<±325	SBY-CM2-R0001
0.2	1.25 ±0.1	<±220	SBY-CM1-R0002

All dimensions are in mm, General tolerance +/- 0.20mm

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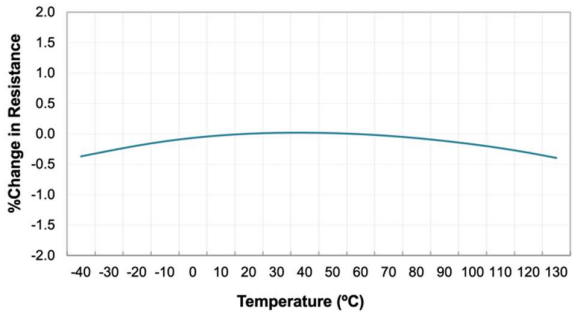
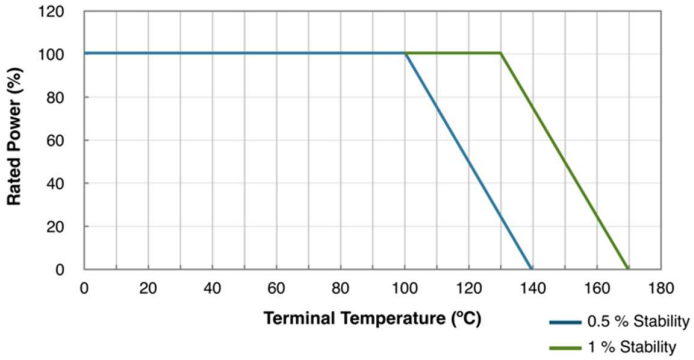
Resistance Change vs Temperature



Power Derating Curve



Performance:

Type of Test	Reference STD	Test Specifications	Acceptance Criteria
High Temperature Exposure	MIL-STD-202 Method 108	1000Hrs. @ T=170°C.Unpowered.	ΔR +/-1%
Temperature Cycling	JESD22 Method JA-104	-55°C to 150°C, 1000Cycles, 30Mins at each extreme	ΔR +/-0.5%
Biased Humidity	MIL-STD-202 Method 103	85°C & 85RH with 10% operating power, 1000Hrs	ΔR +/-0.5%
Operational Life	MIL-STD-202 Method 108	125°C at rated power,1000Hrs	ΔR +/-1%
External Visual	MIL-STD-883 Method 2009	Visual inspection	Visual
Physical Dimension	JESD22 Method JB-100	Dimensional inspection as per SBCL Specifications	Shall confirm within tolerance limits
Resistance to Solvents	MIL-STD-202 Method 215	Clean with Aqueous chemical	Marking shall be legible
Mechanical Shock	MIL-STD-202 Method 213	100g for 6ms, Half sine	ΔR +/-0.2%
Vibration	MIL-STD-202 Method 204	5g for 20Mins, 12 cycles each of 3 orientations.10-2000Hz	ΔR +/-0.2%
Resistance to Soldering Heat	MIL-STD-202 Method 210	Solder Temp. 260°C, Time 10Secs	ΔR +/-0.5%
Solderability	J-STD-002	As per J-STD-002	>95% Coverage in 10x Magnification
Electrical Characterization	User Spec.	Resistance as defined	Shall confirm within tolerance limits
Short Time Over Load	--	5x Rated Power for 5Secs	ΔR +/-1%
Low Temperature Storage	--	-65°C for 24Hrs	ΔR +/-0.2%

Packing:

- 100 Pieces vacuum packed in plastic bags
- Customised tray packing available on request
- Tube packing available on request

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Example of ordering Code

SBY-CM1-R0002-5-BK